

CHICAGO TIMES

NEWSLETTER OF THE CHICAGO TI-99/4A USERS GROUP

See Programming Contest Winners
Attend the next meeting in Hillside
ATTA BOY JAN!

MAY 1989

EDITOR: Bob Demeter

Hey,
LOOK at
THIS!

NEW MEETING PLACE THIS MONTH....

The meeting will be Sat. May 13th at the BROADVIEW AMERICAN LEGION HALL Danny Goldstein will give a demo on a Robot. Meeting time: 1-3 pm

NEW BBS # 312 862-0182

NOTE: New meeting PLACE and DATE

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MEETING DATES

We are moving our meetings to the Broadview American Legion Hall 4941 Butterfield Rd. Hillside, Ill. The May meeting will be held on Saturday May 13th, 1989. Please note this IS NOT the first but second Saturday of the month. The Executive board meets from 11 to 1. The regular meeting is from 1 to 3 pm. All are invited to attend. I am told that our June meeting may be held in Hillside too. The June meeting should be Saturday June 3rd. Please plan to attend. Please bring a TV if you can.

It was good to see several TV around the room last month. I think it made it a lot better for everyone to see. The small TVs seemed to work out just fine. Thanks to all that brought them.

The Chicago Times is published 10 Times a year from Sept. to June. Chicago Times is in no way affiliated with Texas Instruments. We are supported solely by our subscribers and advertisers. Subscriptions are free with membership to the Chicago TI 99/4A User's Group. The Chicago Times is also distributed free to any User's Group that wishes to reciprocate. Articles within these pages may be re-printed by other User's Group Publications provided credit is given the Chicago Times as the original source of the article. Comments and letters are welcome. We also accept submissions of original articles and programs.

DIRECTIONS — NEW MEETING PLACE

The Chicago TI User's Group will now hold its meetings at the BROADVIEW AMERICAN LEGION HALL.

The new location is at 4941 Butterfield Road. Hillside, IL

From north or south, take I-294 to the Eisenhower Expy, eastbound.

Go to MANNHEIM road "NORTH" exit. This is the second exit once you get on the Eisenhower.

Take Mannheim to WASHINGTON BLVD....there is a jewel food store on the corner. This is the second stop light after you get off 290. It is also called Route 56.

Turn left, (west) on WASHINGTON....go about 1 1/2 miles and you will pass WOLF RD.(stop lite).

Go about 3 1/2 blocks and the hall will be on the south side of the street.

THE PRESIDENT SPEAKS...

I would like to begin with a big "Welcome Back" to our own David Q. Wakely. (The "Q." stands for "quintessence," of course.) I really missed your articles, and having them back in our newsletter really makes me feel good.

Dave's not-so-subtle criticisms of my writing style were not lost on this reader. In fact, I have an admission to make: I admire Dave's style of writing, and a lot of my early articles strove to emulate his witty but informative style. Alas, I am unable to do what Dave does. Where his articles are witty, mine are ponderous and tedious, and where Dave's articles are informative, mine, in contrast, are wordy and sententious. Try as hard as I may, in comparison, my writing is dull and lackluster. Though I may have pretensions towards writing, deep down I realize that I just don't have it, compared to Dave Wakely, but I still can take a hint from someone who I both like, admire, and respect. Therefore, I shall try to keep my writing from, a.) being too wordy, and b.) unnecessarily difficult. I write this article for the purpose of giving information on some aspects of the group that many of our members may be unaware of. I also want to make announcements and answer questions that need an answer for a significant percentage of the membership. In my Geneve Support Articles, I have felt more free to write at length, as I didn't think that anyone who didn't have a Genny would

even bother reading the trash, and I assumed that anyone who didn't have a Genny or who wasn't interested in hearing my flow of garbage would just simply turn the page. I do appreciate that this is a 4A support group, and even though I use my Genny, almost exclusively, I have no desire for the 9640 to squeeze out the 4A; the survival of the 4A is still a very important thing for me. Anyway, I will attempt to be more brief and to the point. In fact, I am going to forego this month's Geneve Support Article in order that I can come out with a better product next month.

MORE THANKS

Just a few more thanks for the "invisible crew" that keeps our club functioning as well as it does: Thank you Grant, our "go-fer," for helping my friend Big Bob Demeter, mail out our newsletter. Grant travels all the way from the north side of Chicago to Whiting, Indiana to help Big Bob put out our newsletter. He also sells single copies of MICROpendium Magazine, at our monthly meetings. Thank you Irv Levinson for sending out packets to our new members and for helping with membership during the Faires and our regular meetings. Thank you Alan Izzo for mailing out information to those individuals who write us and who want to know more about our group. Thank you Len Rovner for 2 1/2 years as our treasurer and as the chairman of our business S.I.G. Thank you Tom Wandrey for duplicating our sample tape for new members. Thank you Hal, Almut, and Harold Shanafield for your work during the meetings and the Faires and for your mailings of back issues to new members and to those who had theirs lost in the mails or just simply wanted issues from before they joined the group. Thank you Edward ("The Mighty Buzzard") Krantz and Danny Gronowski for your graphics treats on the covers and in the pages of our newsletter. Thank you Sam Pincus for your advice, support, and continuous involvement in our group. Also, thank you for suckering me... I mean for getting me involved with the executive board. Thank you Big Bob Demeter for editing my articles so that they aren't too long and thereby unreadable. A very big thanks with lots of appreciation goes to Tom Niemczyk for your work as our assistant librarian. I bet that a lot of people who come to our meetings don't even know who Tom is, but without his sacrifices, we wouldn't have had the library at a lot of the meetings. Tom is the man who faithfully brings the library when Big Bob can't get a baby sitter, and therefore can't make the meeting. Tom is also responsible, with Bill Hughes, for sending out virtually all of our library orders; a big thanks to the both of you. And thank you Dave Wakely for coming back home. We sorely missed you. I think that I will continue with my thanks for the next few months until I have mentioned every one. It is the least that I can do to make it clear that everyone's sacrifices are both recognized and cherished.

Well, I'm gonna stop while I'm ahead, but before I do, I am going to thank Angie (Vanna) and Chris for their help with the drawings at our meetings. And my heartfelt thanks to the general membership for their continued support and interest.

I leave all of you with all of the blessings that I have to offer.

Respectfully submitted,
Don Jones
President
Chicago TI Users' Group

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THE PRESIDENT SPEAKS...

I must begin for apologizing for my absence last month. It seems that my good friend, Mr. Big Bob Demeter, accidentally lost last month's article. Bob has promised to run it this month, so I will try to keep this one short.

First, I would like to give my heart-felt thanks and appreciation to my good friend, Jan Joel Janowski. Jan gave a truly beautiful and informative demonstration of the portable TI console with a built in RAM disk, which he both designed and constructed. It was a difficult demonstration to both do and understand, but Jan did a truly extraordinary job. He kept his entire audience enthralled throughout the demonstration by making clear what would have otherwise been unclear. After seeing that great demonstration, I acquired an even greater respect and admiration for my good friend Jan. Jan's demonstration, by the nature of his research and findings, has strengthened our community and shown us other untapped potentials in our "lowly" but beloved 4A. It's people like Jan who keep our community alive and kicking, and I, personally am deeply grateful to him for his participation in our dream.

If you will remember, in my first article as the president of this fine group, I chose to accept responsibility for all problems and complaints regarding our group. I have requested that all members with any complaint or grievance contact me for a remedy of their problem. I have also attempted to execute a program designed to eliminate all outstanding problems related to the functioning of our group. At last, I feel that there has been some small return for my meager efforts. To be specific, the last time when I went through the mails, which come to our post office box, I was most pleasantly surprised to find that, for the first time,

THERE WERE NO COMPLAINTS AND/OR PROBLEMS!!! I don't think that many of the members of our group can understand the elation which I felt, which this otherwise small and insignificant experience brought me. I do not intend to imply that there are no remaining problems. I am only saying that if there are any, which have not been addressed, I am not aware of them. All complaints and problems which have been sent to our post office box have been addressed, and we have attempted to satisfy the injured member in some way. All this leads to the next important point:

Secondly, there has been a long standing problem relating to those members who, in 1987, paid for what we called an "On-going, Non-attending Member" status. This was supposed to have been a premium status which was especially directed towards our many out-of-town and non-attending members. For an additional \$3.00 we promised those members a new edition of our library listing and a sample "flippy" disk of some of the newer and/or better programs in our program library. The work to accomplish this job was a lot more than we ever expected. We also quickly found out that publishing a new library listing each year just simply isn't feasible. But due to the hard work and sacrifices of the great editor-in-chief of this fine newsletter, Big Bob Demeter, as of two meetings ago, we now finally have volume two of our library listing, and it is truly a magnificent piece of work. In addition to this, my good friend Hank Ellermanj has put together a very nice sample "flippy" disk for our members, who paid the additional \$3.00 in 1987. I tried to help out in this project by copying a few of the disks, and, at the last meeting, I submitted all of the needed copies, of the flippy disk, with a label which I generated, to my friend/neighbor Irv Levinson. Irv has already been given a set of labels, which was generated by our fine membership chairman, Mr. Jim Brooks, with the names and addresses, of those members who paid the additional \$3.00 in 1987. Irv will be mailing these promised packets out in about a week from the writing of this article. (The only reason why he hasn't already taken care of this job is because he is presently out of town, due to work related business.) If you, dear reader, are one of the many most patient members who paid for the above mentioned "premium" status, and if you have not received your packet by the first week in May, please let me know. We will check our records and take care of you. It truly gives me great pleasure to be able to finally see the fulfillment of this long standing commitment. I truly regret the delay and the inconvenience which the delay may have caused you.

To those members who did not pay for the above mentioned "premium" status and to those members who have not ordered a copy of our new library listing, I urge you to do so; it is a very piece of fine work which Big Bob has given us, and it is just full of many nice programming goodies. The cost of

the new listing is \$2.00, and it is well worth it. At the same time, I caution you to not discard the older listing, as none of the 'isks listed in the older listing are in the new listing. In other words, the new listing is a continuation of the older listing, and to have a complete catalog of our library, you will need both listings.

Relative to our program library, Big Bob brought it to our last meeting, and he officially turned it over to our new librarian Mr. Lionel Bordelon. It was really great to see Big Bob again as he had missed the previous three meetings, because he was unable to get a baby sitter. Another big treat was the fact that Big Bob brought the latest addition to his family to the meeting. (I just can't resist kissing babies, even when I'm not running for an office!) She is truly a beautiful baby. I can see that Big Bob deals only with "FOXES," because all of the women in Big Bob's life (I mean his wife and daughters) are all beautiful ladies. I would have attempted to hold Pammy, but I was afraid that our secretary, Marcy Brun, would have used me for a karate demonstration, and as I enjoy not having a broken jaw, I wisely chose to just look and not touch. Well, I still expect to have my chance to hold this beautiful baby!

Just a short word about our library: As I mentioned above, Lionel Bordelon is our new librarian, and he has officially taken over the library. New library orders may be sent to our post office box address, but any orders that are sent to Big Bob's post office box will be forwarded to Lionel. Big Bob, with his well known big heart, has offered to do this, in order to be of assistance to Lionel as he is getting adjusted in his new and most important position.

Our last meeting was a great success, and this was in large part due to the place of the meeting. As you have probably already read, our last meeting was held in Hillside, Illinois, at the American Legion Hall there. It is a fine facility, and I wish to personally thank Chuck Levitt for suggesting it, and for helping arrange its acquisition for us. The only negative aspects are a.) it is rather far west, and b.) we are forced to pay \$60.00 for each usage. Still, until we are able to find something better, it is a very fine place for a meeting. If you were discouraged or frustrated with our last meeting situation, please give this new meeting place a try. It is very close to the Eisenhower Expressway, and it is therefore very easy to get to. And if you do come to the meeting, please bring a t.v. set. If you are only able to bring a small portable that only one to three people can watch comfortably, it will still help. We are broadcasting the audio and the video, of the demonstrating computer, through a device called a "Genie," and all t.v. sets in the room, with an antenna, will pick up the signal very well. We used to have a truly excellent meeting facility at Triton College, but due to rehabilitation of the

building in which we had our meetings, Triton College is not available to us at this time. We are therefore forced to find a more suitable place so that we can continue to have meetings that are comfortable, informative, and fun. If you have any other suggestions of any centrally located facilities, please let me know of them. (We will also be checking out a suggested place in Des Plaines.)

If you have ordered a hardware manual, you should have received it by now. We were unable to send any out for about a month simply because we ran completely out of them. Thanks to the work Roger Helm, a print shop teacher, in the Naperville school system, 300 more were delivered to us at the last meeting. I also received a message today, from Chuck Levitt, stating that 59 copies were mailed out today. If you have not ordered a copy of our hardware manual, I urge you to do so. It is one of the finest projects which, thanks to Nick Iacovelli, has ever come out of our group. Try it; you'll like it! "Trust me..."

I think that this covers the important bits of news and information for this month. In closing, I would like to thank the officers and the members of the executive board for their hard work and for the support which they have extended to me. I only hope that I shall prove to be worthy of their confidence and trust.

I extend to all of you all of the blessings that I have to offer.

Respectfully submitted,

Don Jones
President
Chicago TI Users' Group

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MEMBERSHIP NEWS AND VIEWS

by James Brooks

This past meeting was well attended by over 80 members. I think that the New Meeting Place had something to do with the extra Members attendance (they wanted to check it out). The New Meeting Place is convenient to the I 290 being about 10 minutes off of the Manheim Rd. exit.

There are two levels, the meeting on the upper level while the vendors set up their ware's on the lower level.

There was a demonstration by Jan Janoski of the portable TI-99/4a which was very thorough in detail. This was a project that called for a lot of know how and what to do to make his home made Portable computer.

There has been a drop in the membership (which is mainly the out of town and overseas members) but most of the

local members have renewed for another year and we thank you for a continuing Club. While we met at Triton College for so long, we had a favorable attendance of around 150, 175 members. Our attendance dropped while meeting at the Brickyard Mall due to the inconvenience of "just getting there". We hope more members will attend at the New Place.

There are many things going in the coming months. We plan to start the S.I.G.'s again because we still have some new members that need help in various areas concerning the TI 99/4A and the GENEVE 9640.

As of this date, all renewals should be up to date (if not, let me hear from you soon) and back on the regular mailing list.

Well that about covers it for this month so I hope to see as many as can make it to the next meeting, May 6, 1989. Since we are meeting at the American Legion Hall, there is an incurred expense of \$60.00, so we are asking for a \$1.00 donation per meeting (if you are in attendance) to cover this expense. The New BBS number is (312)862-0182 and is now located in Calumet City, IL (A South suburban town in the Chicago Area) It is now being run by MIKE "Froggy" Maksimik. All members are encouraged to call the Group board for the latest Group information.

There has been a few changes of the great volunteer group that keep this Group going. For the latest list, call the Group's BBS at (312)862-0182.

P.S. There is the program contest and the auction coming within the next couple of meetings. Also, local Chicago Area Members changing their address or need membership information may call my AFTERHOURS BBS at (312)651-7252 and leave a message "to the SYSOP" as to what you need as for "Change of Address or Missed Newsletter".



The Making of a Portable

Part 4

By Jan Janowski

Things are going along quite well now. I am busy each evening, slowly working my way across the schematic, and transcribing it in wires on the "Expansion Board", as I call it. Quite frankly, I am wondering how it is going to work when I am done. Will it work at all? Or, will all my work be for nothing? The only way I will find out is by trying. The expansion board now contains the 32K ram, and most of a ramdisk, with areas of the board set aside for the parallel port, which is the next hurdle I must get over. Originally the parallel port was part of a Kantronics Hamsoft Package, made for attaching to a stand alone console, in the same connector that the expansion box plugs into. I have been using it on my Ham Radio TI for years, and have been quite satisfied with it. My only concern, (Oh goody! another potential problem, just what I need!) is that although it works with a ramdisk in a console, I don't know whether it will work with an expansion box, when it is connected to the console. One of the users explained that the CRU Address of the parallel port is 1060, or for all intensive purposes, 1000 CRU. Not having a connector such that I could plug in the Hamsoft as well as the expansion box, well, that would just have to wait. (Preliminary experiments show that there is no problem so far, but to this day it has not been fully verified.)

At this time, I would like to thank many people for the assistance that I have received on this project. Jim McCulloch, Jim Derk, Don Waldon, Hank Ellerman, Ron Walters, and Bud Mills, and Frogman Mike have each contributed time and conversations. Their suggestions have helped me in getting past one or more of the problems I have indicated during this series of articles, and a hearty THANK YOU is in order. It is my feeling that a project of this magnitude cannot be fully brought to completion with just one person working on it. It is the teamwork of the TI community that has made this possible. Some thanks also goes to Kantronics, 1202 E 23rd St., Lawrence KS 66046, for making the Hamsoft module for the TI computer, as without it I would not have attempted the project in the first place. The Hamsoft is a module that allows interfacing of a stand alone TI computer to a Ham Radio for RTTY and CW operation (Radio Teletype and Morse Code) for both reception and transmitting. (Please note that this module itself interfaces with another PC board, which has the actual interface to the Ham Radio on it, the Hamsoft module contains the operating program for the transcoding of the electrical impulses into words, and controls the transmitting and receiving sequence for the Ham Radio. I am the happiest Ham (Amateur Radio) operator in the world, as my TI and I have enjoyed many a year of communications worldwide with other Hams on RTTY. I have

that feeling toward my TI and Ham Radio.

Meanwhile, back at the ramdisk: I am getting near the end of the wire installation, and am very glad of it. As I mentioned before, after each major wiring on the board, the board was tested to verify that the console was not being locked up by the expansion board. It takes longer to do things that way, but you have an idea where the error is this way. Finally the day came when I could stuff the sockets with logic chips, and turn it on for a test. The console was not locked up, but other than the 32K mod, which was already tested, it was not working. After checking the wiring once again, and finding no problems, I had no other choice than to use an oscilloscope to see if any of the pins were acting unusual. You never know, I might have installed a new chip that was bad, I have seen it happen before. I eventually found two data buss wires that were shorted together by the thinnest piece of solder I have ever seen. With that removed, it still didn't work. Continue on, scoping pin after pin. Finally found a wire that looked soldered, but was not connected to the IC socket. All other memory chips had this pin connected. Just one did not get connected. Fixed that. Still didn't work! Kept snooping, and eventually found an intermittent IC socket. Can't blame the manufacturer, I had moved it after finding it out of place. Replaced it, and it worked! Eventually found another intermittent solder connection, which nearly drove me crazy to find it, but that was the extent of the errors, except one, which I did not notice, because the schematic I was using did not show it properly, and so I wired it wrong. I have included it in the list of changes that I made to the ramdisk.

The schematic I used for the ramdisk is basically a scaled down version of the HRD+ ramdisk. Scaled down in that it only uses 16 62256 chips instead of 32 chips. The total size of the ramdisk is 512K. I made one major mistake in it that was not caught for 2 months, and caused very rapid memory battery failure: The pullup resistors on the memory chips pin 20 was originally connected to the power supply +5V, and when the power supply was turned off, the +5V went to nothing, which is a digital "0", which unfortunately tells the chip to turn "on" and it therefore draws more current. This made me think that I had bad chips, but I hadn't, I had bad wiring. When the pullups were re-connected to the battery backup voltage, all was fine. I also made a couple small changes in the schematic of the ramdisk. I added a 1K pullup resistor between the memory chips pin 28 and 27, which forced a pullup resistor on the Write Enable line, so that during power off, it would not inadvertently try to write to memory. (This probably worked in conjunction with the pin 20 pullup error). I also wanted to be able to have battery backup during the time I would change batteries, on the memory card. I installed a memory capacitor (which acts like a battery in itself) and that

stabilized the battery backup voltage real good! (Radio Shack 272-1440) This worked so good that I placed one in the supercart, too.

One last modification to the ramdisk. There is no LED on the modified power supply (mentioned in part 1) and I wanted to do something special, so, I re-designed the LED for the ramdisk, so that that one LED had two different colors in it. The red part is connected to the power supply, and glows dimly red when the power is on. The yellow side is connected to the ramdisk, and glows bright yellow when the ramdisk is accessed. This LED is placed beside the "4A" stamped in the top chrome trim of the console.

To give you an idea of the flow of the interconnects within the console, the following is a block diagram of the additional circuits, and their placement in the flow of things:

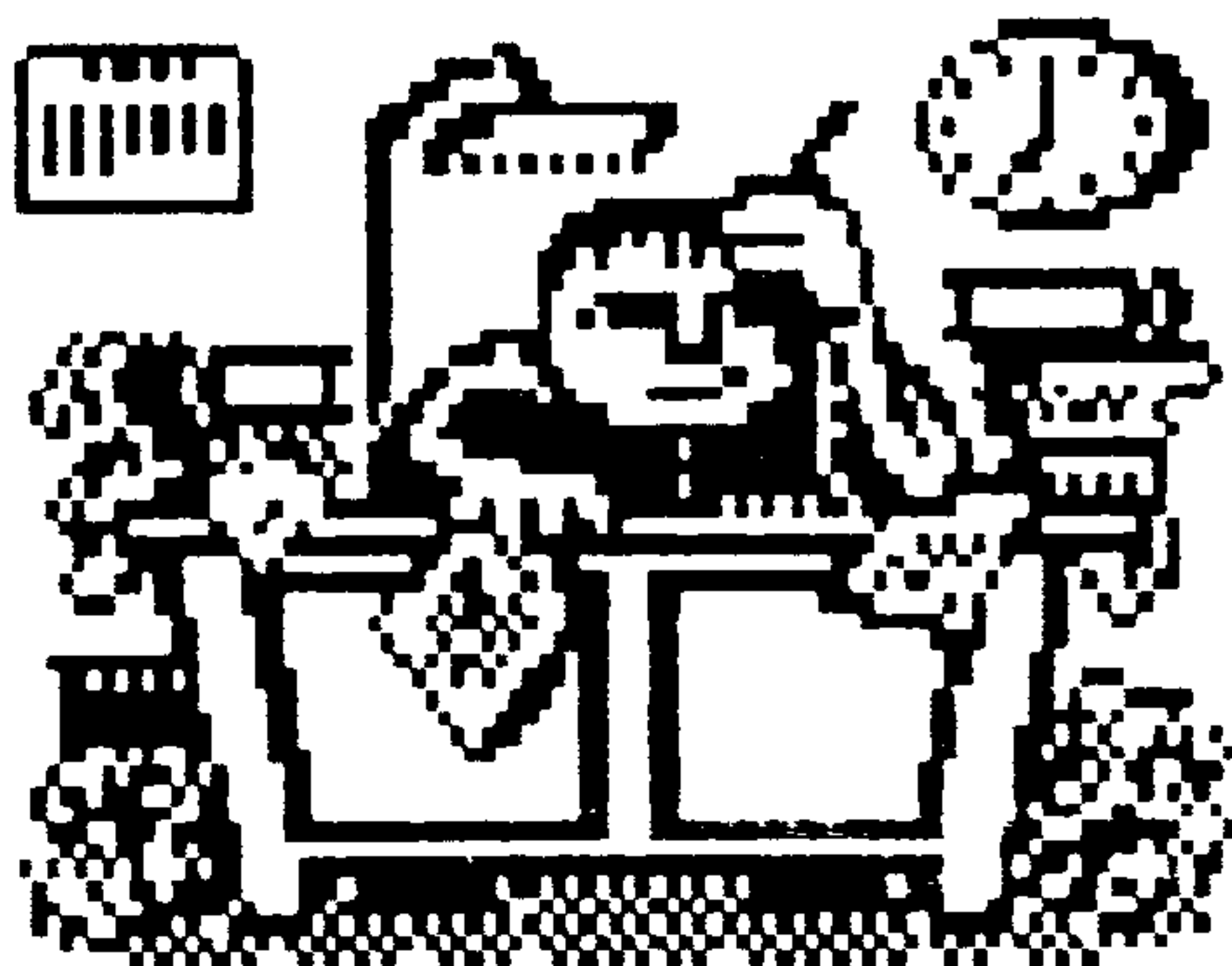
```

DATA-----74LS245-----DATA BUSS INSIDE RAMDISK
      -                                     -
    32K MEMORY                             -
      -   -                               -
32K ENABLES-- -                           RAMDISK LOGIC AND MEMORY
      -                                     -
      -                                     -
      -                                     -
ADDRESS BUSS-----74LS244-----ADDRESS BUSS INSIDE RAMDISK
                        ADDRESS BUFFER

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HAMSOFI CONNECTS AT FAR LEFT OF DIAGRAM

End of Installment #4



MINUTES BY MARCY

The Executive Board Meeting of April 8, 1989 was brought to order at 11:45 am.

-----Since this was the first meeting at the new place, the Broadview American Legion Hall, a lot of people were late in arriving. However, at 11:45 am there were enough people to begin the meeting and enough people present for any voting that had to be done.

The agenda was looked over for approval. The agenda was approved and the minutes of the last meeting were approved.

-----We still need a new Publicity Chairman. There is no rush work that he would need to do right now. The real need will be doing publicity three months before the 1989 TI Faire. That will consist of making up two full page ads for Micropendium, putting ads in the free newspapers, and mailing out news releases to all the radio and television stations. Mike Chappell will pass over all the information to the person who volunteers to take on this position.

-----Don would like Hank Ellerman to be in charge of the groups Geneve computer to make sure that it is not sitting around collecting dust. All attending members are welcome to borrow the Geneve for a while if they are interested in trying it out. Hank will keep a record of who is using it and who would like to use it to make sure it is available for everyone. We will also be using it for demonstrations at the meetings.

-----It has been brought up that during the demonstrations it is hard to see the monitor when only one tv is brought to the meeting, and also that it is hard to hear the demonstrations when others are talking in the back of the room with vendors and each other. Don Jones has information on a new product that hooks to the back of computers and projects the image onto a large screen. He would like to get a committee together to research whether this is feasible for our meetings and if it could hook up to a TI computer. Also this committee may think of another way to solve our audio visual problem. The persons that had volunteered for this committee are Hank Ellerman, Oscar Brentana, Mike Maksimik and Don Jones.

-----Regarding Don's project of sending Micropendium magazines with our donation label on them to the libraries. Don has talked to Grant and instead of getting five subscriptions for five different libraries, he will be giving Grant labels to send the Magazine to five different libraries. That way we will not have to put out \$100 for five new subscriptions since Grant brings new Micropendiums to the meetings every month.

-----Don suggests that Tom Niemczyk be granted the official title of Assistant Librarian. Tom has been doing a lot of work with the library. When Bob Demeter can not attend the meetings, Tom volunteered to bring the library to the meetings and assist people to find the programs they are looking for. Tom has also been helping greatly with sending out library orders and copying programs to be put into the library. Tom was offered the position of Librarian when Bob stated that he was retiring. However, he did not want the total responsibility and would rather help whomever took over. There was a motion on the floor to make Tom the Official Assistant Librarian. This motion was voted and passed. Congratulations, Tom.

-----There was a discussion regarding people coming to the meetings to sell things, whether they should be a member or not have to be a member. The discussion was ended that if someone who was not a member came once just to sell some of their equipment because they don't need it any more, it would be allowed. They would be considered a guest. But if someone would come on a monthly basis to sell things like a vendor, they would have to become a member. Because they are doing it as a business not as an individual trying to pass on a few things. Therefore, we will start keeping a record as to who is coming to sell items at the meetings each month.

Jim Brooks was asked to buy a Guest Book for the purpose of signing in the monthly guests. In this way we will have a permanent record and not just a single paper of guest's names that could get lost among other papers. That way we can keep count of how many times a guest comes to the meeting. The policy is that a person may come to one meeting as a guest. After their first meeting, if they would like to keep coming to meetings, they should become a member.

-----The next meeting in Hillside will be May 13th, which is the second Saturday of the month. The June meeting will also be at Hillside. This will be on the first Saturday of the month, which is June 3rd.

-----We are requesting Chuck Hoff, our Group Equipment Chairman who is not in attendance at this meeting, to give us an accounting of what groups equipment we have and who is in possession of it. We would like to have a record of this information for future use. This was a project that Chuck Hoff was in charge of.

-----The project of updating and sending out back information to on-going non-attending members from 1987 will be finished next week when these people will be receiving their library catalog and free disk and back newsletters. Don Jones and the membership staff have been working on this project.

-----The library will be physically transferred to Lionel

Bordelon within the next few weeks. Lionel will be the new Librarian as Bob Demeter steps down to concentrate as the Newsletter Editor.

-----Marcy Brun, who organized the 1988 TI Faire Convention presented a financial report made by Len Rovner, our past Treasurer. The revenues which the Faire, dinner and mixer brought in were \$5,617.44. The expenses of the Faire, dinner and mixer were \$5,275.97. Therefore, the 1988 TI Faire Convention brought in a profit of \$341.47.

We feel that the Faire is a very important event for our group in the fact that it is a way for bringing our TI family together and a way for TI'ers to buy the products that they need. This is the reason why we need to keep the Faire going. We do not want to make a lot of money from the Faire. We just want it to pay for itself, which was what was accomplished.

-----Jim Brooks, the Membership Chairman, gave his report. Last month we had 15 renewals. Since the first of the year we have had only five new members. All the membership records are up to date and all the members are being serviced. We have not received any complaints from any one for the past two weeks.

-----Hank Ellerman talked about the events scheduled for the next few meetings. At today's meeting there will be a demonstration by Jan Janowski. He will be showing how he converted his TI into a portable computer. We were also planning on seeing a demonstration by Nick Iacovelli which was to be an IBM running TI software. However, Nick's IBM was down, so this demonstration will be given at another time.

At the May meeting we may have a robot demonstration presented by Danny Goldstein. We will also have demonstrations of the programming contest entries.

At the June meeting we will be holding our annual auction. If you have anything you would like to donate for the auction, please send it in to Sam Pincus.

-----At this time there are about 14 entries for the programming contest. 12 of these entries are from out of the Chicago area. There was a question regarding if everyone entering the programming contest gets something or just the winners. The procedure so far has been that just the winners get a prize. In the past, the entries have usually come from attending members. This is the first year that most of the entries have come from non-attending members. There was a discussion that maybe everyone who enters should get a copy of every program that was entered. It was discussed and the motion was on the floor to give each entry

a certificate for their choice of disk from the library. The motion was voted and passed. The Secretary, Marcy, will send out the gift certificates for the library to each person that entered the contest.

-----Sandy Bartels gave a 1989 TI Faire Convention report. Sandy, Marcy and Christine went to the Holiday Inn in Rolling Meadows to set up all the arrangements and to put down a deposit. There will be 50 rooms blocked in the tower where the hospitality suite was in 1988, and there will be 50 rooms blocked around the pool. The room rate this year will be \$50 no matter what size room you have. This is \$5 to \$15 less than last year. The Friday Night Mixer will be \$5 per ticket. The Saturday Night Dinner will be \$15 per ticket. There will be a Kid's Night Out Friday and Saturday night. There may also be one or two baby sitters available. We are also trying to negotiate having the hotel bus be available to ride from the hotel to Woodfield Shopping Center for the wives that want to go shopping Saturday while their husbands are at the Faire.

Sandy requested a volunteer to do publicity for the Faire. She also requested a volunteer who has PC Pursuit to put announcements about the Faire on bulletins across the nation. If you are willing to help, please contact Sandy Bartels on the groups bulletin board #312-862-0182 or through the groups P.O. Box.

-----Our membership has dropped and the reasoning for this is that we have not been advertising for new members because it was decided that we should completely service the members which we had before we go back to advertising for new members. One reason for this is because most of the new members which we were getting were from out of town instead of attending members which could help with the work that had to be done. At this time we now have taken care of all the problems and complaints that have come up in 1988 and we are servicing all our members as they should be serviced. It was decided that it would be better to continue like this and at a later date start to work on bring in new members again.

-----Right now Chuck Levitt has 55 orders for the Hardware Manual which he has to fill. He is waiting for the new printing to be finished. This has been a very good project for the group and it has not been advertised at all.

-----There was a discussion of selling the library to non-members. In the past, it has been the policy that you had to be a member in order to buy programs from the library. There was a discussion on the good points and the bad points. After a long discussion and a lot of ideas and agreements and disagreements, the motion was brought to the floor to table this discussion and continue as we have been and stable ourselves for the next few months and bring this matter up at

a later date. This motion was voted and passed.

-----Mike Maksimik, the new Sysop, gave a report on the bulletin board system. The bulletin board has been up and running at Mike's house since the last meeting. The new phone number is 312-862-0182. There was a problem that the remote sysop password had gotten out to the public. So he had to change the remote sysop password. He would like to give this password to the officers on the executive board and Bob Demeter for the newsletter.

Mike is in the process of writing a new bulletin board program. He is about half way through it. In this way he will be able to understand the program and make changes without having any problems. He will be removing some of the old files and generate new files. One promotion he would like to do to get more people to use the board would be to put up some fairware programs. Fairware is the type of program that an author makes and allows people to distribute it and hopefully people who use it will send the author some money for it so he can continue to write more programs. There was a motion on the floor to have Mike put up Fairware on the bulletin board on a weekly basis. One Fairware program a week to promote people to call the board. This motion was passed.

Mike had brought up the suggestion that since he is rewriting the bulletin board program, he would like to get authorization to purchase a hard drive for the board and the program he is writing will be written for a hard drive. There was a discussion that previously the Executive Board had allocated up to \$500 for a hard drive for the board. However, this money had not been used yet. There was a discussion as to whether this motion was still active. There was also a discussion as to whether the board needs the capability of a hard drive or not. After a long discussion, a vote was taken as to since the money has been appropriated for getting a hard drive, Mike was just clarifying that he has authorization to get the hard drive. This vote was passed.

-----Now that we are at a new meeting place at a new location, there was a vote as to how many people liked the new meeting place and if we should continue coming here. Everyone voted that they do like the new meeting place.

There are two levels at the new meeting place in Hillside. The vendors were located downstairs and the Executive and General Membership Meetings were located upstairs. Therefore, general members were able to sit in on the Executive Board Meeting. Also this worked out better for the audio visual problem because people who wanted to talk to vendors or among themselves were able to do so without interrupting the meetings.

The Executive Board Meeting ended at 1:25pm. The General Membership Meeting was opened at 1:30pm.

-----There was a very interesting demonstration by Jan Janowski, who actually took apart his self built portable TI computer and reassembled it to show how he accomplished his project.

The General Membership Meeting was adjourned at 3:00pm.

Submitted by: Marcy Brun, Secretary.

STRESS DIET

The following diet was taken from an article by Chick De Marti. It was in his Did You Know That... article written for the LA 99ers Topics newsletter.

After long hours at my computer, the stress factor obviously doubles. I have found the solution. In the ...
S T R E S S D I E T.

Breakfast:

1/2 grapefruit, 1 slice whole-wheat bread, 8oz skim milk.

Lunch:

4oz broiled chicken breast, 1 cup steamed zucchini, 1 oreo cookie, 1 cup Herb tea.

Mid-Afternoon snack:

Rest of Oreo cookie pack, 1 quart Rocky Road ice cream, 1 jar hot fudge.

Dinner:

2 loves garlic bread, large pepperoni and mushroom pizza, pitcher of beer, 3 candy bars, entire frozen cheesecake eaten directly from the freezer.

Diet Tips

1. If no one sees you eat it, it has no calories.
2. If you drink a diet soda with a candy bar, they cancel each other out.
3. Calories don't count if you eat with someone and you eat the same amount.
4. Food taken for "stress" doesn't count. This includes hot chocolate, brandy, toast or Sara Lee chocolate cake.
5. If you fatten up everyone around you, you'll look thinner
6. Snacks consumed in a movie do not count as they are part of the entertainment. Ex: Milk Duds, popcorn w/butter, M&Ms
7. Pieces of cookies contain no calories. The process of breaking them up causes a calorie leakage.
8. Late-night snacks have no calories because it's not really a meal-time. (Also see Rules 1 and 4 above).



The Disassembly: Dave Wakely

The Contest; The Auction; New #; Other Things:

It seems like only yesterday that we were at the TI Faire in Rolling Meadows, but here it is, coming up on the end of our Chicago TI "season". Before that happens, a few of our "regular events" will be taking place. First off is the Annual (read: alive, but barely kicking) Programming Contest. Since this column is being written just before the April meeting, I can't tell you how many entries there were, but only that before the meeting there were about six and that some winners were picked from them. In a separate blurb in this newsletter you will find the names of the winners. The upcoming May meeting will feature demonstrations of their programs.

WHAT AM I BID FOR...: Now is also the time to go through your TI belongings to check what you are no longer using. This is because the group's Annual Auction will take place at the June meeting. For this event the group relies on the donations by members of no longer used equipment and software which is traditionally raffled off by Sam "The Madman" Pincus, assisted by Dave "The Psychologist" Wakely, and whatever major tranquilizers we can induce Sam to take. If at all possible, bring donations to the May meeting so we can catalog them and bring some semblance of order to what is typically utter chaos on the day of the Auction. AND, with a special nod to Mr. Glenn Davis of Minneapolis, PLEASE NOTE that we will NOT accept cartridges from Geneve users who have dumped their modules to disk and hence no longer need them. It is likely a violation of the U.S. copyright laws to do so, and it's bad business, bad for TI owners everywhere. Bad, bad, bad. Personally, I feel we should all be highly suspicious of Geneve owners trying to do this, and I advocate that they be closely followed by FBI agents at all times, so that the world market for used TI-99/4A modules not collapse (how was that, Glenn?). Ok, that's enough sarcasm. Mr. Davis did have a point, and it's better that we police ourselves rather than have others do it to us. Other than potential Geneve lawbreakers, the rest of us are perfectly free to donate ORIGINAL software packages, hopefully complete with documentation, or cartridges or tapes. Hardware items are equally welcome, working or not. We have had people bid on non-working disk controller cards, for example, just for the parts. So, dig it out and bring it in, we can use it.

You may give your donated items to me or to Sam "At these prices I must be craazy" Pincus at the meeting. Thanks.

WHAT, AGAIN?: Yes, if you were observant you noted that the group BBS has changed numbers. I understand that Mike "The Frogman" Maksimik has taken over Sysop duties, and reports that so far calls have been slow. Perhaps in part this is due to the drop in the number of active TI users, but my guess is that it is a reflection of the drop in calls to all BBSs since Ma Bell rescinded Extended Call-Paks. On the bright side, the new location of the board gives a break to all those south side members who for years have had to call north. Look up the number in this issue, write it down, change your calling log and dial in. As an historical note, the board will celebrate it's 6th birthday over the Memorial Day weekend. The original software was written in 1983 by Sam "Mr. DSRLNK" Pincus in BASIC with Assembly language routines. And it was the first TI board to run on TI equipment. Later enhancements were made by Bill "The Chemist" Hoffman, who wrote the first TEII download package except for The Source, and later by a whole gang of members, including John "The Fuzz" Behnke and Nick "The Human Spellchecker" Iacovelli. I doubt if there is a single line of code left from the original version, but there are many users who have called all the versions. After a little over one year in Oak Park at the home of Larry McMahon, the board moved until last month to Niles, where it eventually drove Butch Goldstein bonkers. Three moves in six years (this doesn't include the board's brief "stop over" at Nick I's) isn't too bad, and during that time many TI boards have disappeared, while we're still up and running.

SubrouTines: The Spadventures series may or may not make it to this issue, depending on whether or not I get the time to complete it. If it doesn't turn up here, look for it next month...I lament, with others, the departure of Bob Demeter from the Library, but I rejoice that he will be able to devote more time to the newsletter. We have heard the complaints that it has become, shall we say, "less useful" to some users, but if you look at the last issue or two you may begin to see that this is changing. As Bob has noted, Carole "Blessed be her name" Goldstein was a tough act to follow, but Bob's getting there. Stay with us...It turns out that several entries to the programming contest mysteriously turned up on Sam Pincus' front doorstep. Not in his mailbox, just discretely placed behind the screen door. No note, no explanation, just the programs, in a plain brown wrapper. Do we have some group members who work for the CIA??...Yes, this column is much shorter than last month. Don "Where's my dictionary?" Jones and I have signed a Mutually Assured Reduction Pact to reduce the size of our columns to lengths which are readable within one lifetime. Last time he beat me to the new, shortened format, this month I caught up with him, unless, of course, someone gave him back his thesaurus.

The Making of a Portable Part 5

By Jan Janowski

Well am I proud of myself! I managed to squeeze a ramdisk in a console, and get it to work, and there is plenty of room left over for the parallel port, that seems to work satisfactorily. Talk about being the happiest guy in the TI world! In test after test, including the TI diagnostics, and Memtest, and Megtest, all tests say that there is no problem. I was about to announce to the world that I was successful, when disaster struck. I disconnected the console from the expansion box, and on power up, the Menu program ran. I selected Funnelweb Farms and the loader part worked, but it then crashed when I selected Editor. I reset the computer, and selected TI-Artist, which promptly crashed. Then I selected Remind-Me! and it loaded, but would not load the month information off ramdisk! Then I tried a basic program that was just a RUN"DSKS.FILENAME", and that worked. Then via E/A cartridge loaded the Editor from funnelweb, and it loaded, but after a letter was done it refused to store, or, for that matter, load from ramdisk. I then tried Fast-Term, and that program seemed to run fine (with the exception that I did not have any serial port to test it on.) A few more hours of testing revealed totally in-conclusive results except that whenever I connected the expansion box to the console, there was absolutely no problem! Whenever I removed the expansion box, the strange problems re-occurred. What's going on? Then, I started a long series of experiments, taking one card at a time out of the expansion box to see which was causing this strange problem. When I removed the disk controller card, the problems re-appeared! I then tried leaving in the disk controller card, but dis-connecting the disk drives. No disk access obviously, but no crashing either, and the system seemed happy. I then thought back to the day I was at another users house, and he showed me that he could load a program without disk drives and controller card. I called him, and he tried it again, and when he ran the programs, he encountered the same problems I did. Some programs continued to run fine, however. Strange! I then tried to fool the computer by changing the CRU address of the ramdisk to 1100 (disk controller CRU address) after separating the console from expansion box. That did not help, either. What followed was 4-5 days of crazy tests, all of which so insignificant that they will not be repeated here. This occurred about 2 weeks before the Faire, so, I went to the Faire armed with schematics, drawings, and in general as much documentation as possible, and talked with literally anyone who would stand still long enough on this problem.

At the Faire, my Idea and experimentation was met with a solid round of "IMPOSSIBLE--CAN'T BE DONE". In more than a few instances, if I had not brought my schematics, drawings,

and such, I seriously believe that I would have been dismissed as a crackpot. I did get to the heart of the TI community, the software writers. At the Faire, I was promised some test material that never materialized, even after a follow up letter to each person I spoke to, with self addressed stamped envelope. However, I was not banking on the Faire only, as I sent off letters to literally everyone that mattered in the TI community, including Texas Instruments, requesting whether I was in fact correct about the lack of a disk controller causing the problem. Most of those letters (each with SASE) have gone un-answered. I finally got a call from Ron Walters in Ohio, who talked with me at length on my project and that conversation was followed up with a 5 minute face to face conversation with Bud Mills of Bud Mills Services at the December Chicago Users Group Meeting on this matter, in which he has promised the TI community a fix for this problem.

What is "THIS PROBLEM"? Well, I have an idea from all the people that I talked to that the ROS was written to co-exist with the Disk Controller DSR (device Service Routine) Now here is where I can get in trouble showing my ignorance about the TI operation system, but as it was described to me, that when a disk system is installed in an expansion box, you lose 2K of RAM in the VDP area, and this is set aside for the Service Routing for handling the disk accesses. Apparently the ramdisk ROS works in conjunction with this disk DSR, and by my removing the disk controller, the ROS was handing off to nothing, and so it crashed. More letters were sent, and at present, no answers were received except one, from Texas Instruments, part of which is repeated here for your viewing pleasure.. and I quote:

1. Install enough of the disk controller ROM (and supporting hardware) on board the computer to simulate the full capabilities for the disk controller in setting up the PAB. I do not know how much is enough.

2. Contact the author of the ROS to understand what parts of the disk controller ROM software it uses. Then, modify the ROS software to incorporate the missing segment.

Mr. Janowski, I hope these suggestions are helpful in completing your project. The research (building sample circuits and disassembling ROM software) would be very extensive. We have reached the end of our expertise and will not be able to assist you any further in this matter.

Cordially,
Texas Instruments

(received Dec 12, 1988)

I then started looking for this disk drive DSR in memory and found it with the Mini-Mem cartridge, but thought I found it, that doesn't mean I know what to do with it. I just powered up the system, and browsed the VDP memory, documenting what I found, then, I powered down the system, and removed the disk controller card, and on power up, browsed the VDP ram again to see what was missing. Here's what I found:

37DB	AA	3EEB	05	3FF5	05
37D9	3F			3FF6	4D
37DA	FF			3FF7	45
37DB	11			3FF8	4E
37DC	03			3FF9	55
37DD	02			3FFA	20
37DE	04			3FFB	20
37DF	50			3FFC	20
37E0	00			3FFD	20
37E1	04			3FFE	20
				3FFF	20

All other locations were 00 and these locations were 00 when no disk controller was installed. This, by the way is a Myarc DSDD disk controller.

End of Installment #5

MOST WANTED

Former member, Andy Chernivsky, would like to find these CARTRIDGES for a reasonable price:

READING ON
READING RALLY
DIVISION I
NUMERATION II
COMPUTER MATH GAMES I, II, III OR IV
DEMOLITION DIVISION
ALLIGATOR MIX
DRAGON MIX
HANGMAN
TOUCH TYPING TUTOR
SCHOLASTIC SPELLING LEVEL 3 OR 4

Come on, clean out your closet!!!

Call Andy at 312 969-4780

GENEVE SUPPORT ARTICLE

Howdy doody there, sports fans! It's good to be back again. Sorry that I wasn't able to make it last month, but I just didn't have the time to prepare something that I would have considered to be acceptable.

How are you doing with your Genny, lately??? I've been doing very well with mine and I continue to be very happy with it. The main reason that I have been so satisfied is the fact that so many new programs and files have been made available for my machine. A lot of the new things were written for the Geneve only while others are modifications of standard TI programs that have been around for many years and that have been giving great service to the TI community. Clearly most of the top programmers in our community are now writing new programs which will run only on a Genny or which are compatible with both a 4A and a Genny. The most interesting of the new programs are those which will run on both a 4A and a Genny, but when they are run on a Genny, they contain certain enhancements that become apparent only when the program is run on a Genny. One excellent "older" program that fits into this category is the program from Genial Computerware called REMIND ME. This program can be easily run on either a 4A or a Genny, but when it is run on a Genny, it takes advantage of the Genny's clock crystal; it will display the current day and date, when the program is initially booted, and it shows the correct time throughout the running of the program. Also related to REMIND ME is John Johnson's short, new program called REMINDERS. With the insertion of the proper dos command, in your AUTOEXEC file, REMINDERS will search to see if you have a REMIND ME memorandum for that particular day. If you do, it will display that memorandum during the booting of your system. Obviously, REMINDERS can only be run on a Genny as it runs directly out of MDOS. For a short, four sector program, REMINDERS is an extremely useful program, and it is one of many new items that are becoming available to the user of the 9640 Home Computer. One of the nicest aspects of this program is fact that it is "FREE WARE." That is to say that the author makes it clear that he is expecting NO monetary compensation for this program, and he also does not want for anyone else to make any money off of it. A surprising number of new programs for the Geneve and the 4A are falling into this category.

Another trend in our community has become apparent to me: It is the trend of where a new machine or device engenders developments in other areas of our community. Let me just give you a few examples: Almost everyone knows about the fine device called the Horizon RAM disk (HRD), and those who own/use this fine device with a 4A are mostly aware of John

Johnson's "FREE WARE" menu program that is designed to work with the Ram disk Operating System (ROS). One of the biggest disappointments which I suffered was the loss of the use of this fine program, when I first started using my Genny. Fortunately, things have changed. Thanks to great programmers like John Johnson and Jim Schroeder, John Johnson's menu program is not only now available for the Genny, in many different incarnations, but it is also available to the user of the 4A who is NOT the owner/user of a HRD! The name of this program is BOOT, and it is a most excellent loader program. Look for it in our library or on some of the 4A/Geneve community boards. Another somewhat related example can be found in one of the most wonderful programs ever to be found in our community. I am speaking of the great program named FUNNEL WRITER, which was written by our Australian brothers, the great father/son team of Will and Tony McGovern. As I was recently setting up the latest version of this program, for use with a 4A, I was pleasantly surprised to find that the program is now modified so that it will run on a Genny without a problem, and for me this was another happy experience, as I deeply regretted not being able to run the older versions of this fine program, when I first started using my Genny. Now, not only am I able to run the latest version of this wonderful program, but an 80 column version is included for those members of our community who are using either a Genny or a 4A with a Digit Systems or a Mechatronic 80 column card! Still, this isn't the point that I was driving at. The point that I was trying to make was that I found that the McGovern's have included at least one feature from a program which was never intended to run on a 4A; here I am speaking about the excellent program MY-Word, which can be used only with a Genny. The particular feature that I am speaking of is the ViewFile option. This option will allow the user to view the contents of another DV/80 file without losing the contents of the file which he/she is working on in the text buffer! Here, we have an example of how a feature in a Geneve program has inspired a programmer to implement this same feature into a 4A program. This is a most delightful thing for me to see, because it is a good example of how the Genny is helping to make the 4A community stronger and NOT in any way endangering the life of its older brother. I therefore hope that there will be many more examples of this sort of mutual support and inspiration.

Since I was discussing the fact that the latest version of FUNNEL WRITER is now compatible with a Genny, I want to mention one important consideration regarding the use of this fine program: A Genny user may ask, "Why should I use FUNNEL WRITER when I already have the use of a very fine word processing program named MY-Word? This is a very fair question, and the answer is that MY-Word tends to use so much memory that other large "cartridge" type programs, like Extended BASIC will be over-written when MY-Word is loaded.

For this reason, when I am finished using MY-Word, the first thing that I do is to return to MDOS by using the key stroke pattern Ctrl-Shift-Shift, to return to the main GPL menu screen, and Ctrl-Alt-Del, to return to MDOS. I then press the "up" arrow key to "replay" my previous MDOS command. I then press "Enter" to re-boot my GPL and my EA cartridges. In other words, because of the large amount of memory which MY-Word takes, I am forced to reload my GPL file to make sure that the next program that I run won't have any problems or crash the machine. As I am booting these files off of my HRD, it is a very fast and easy thing to do, and with the later versions of MDOS, the contents of my built-in RAM disk remain intact. At the same time, when I use FUNNEL WRITER, I can load this fine program into Extended BASIC, and when I am finished, my Extended BASIC cartridge will remain in my "cartridge" memory space intact. I therefore do not have to re-boot my GPL, EA, or Extended BASIC files. I think that this is a consideration that many Geneve users will find most attractive. Also, you may rest assured that as soon as I receive my HFDC card, I will be installing all of the FUNNEL WRITER files onto my hard drive. It is a very excellent loader program, and it provides many useful functions and utilities. I therefore don't think that I will have any trouble filling up all of the menu screens, which this fine program provides, once my hard drive is up and running. (When I receive the HFDC card, which I have ordered from my friend/dealer, Mr. Big Bob Demeter, I will have some very different and interesting things to talk about in my future columns.)

Before I go any further, I would like to ask Miss Angie (b.k.a. Vanna) Izzo a couple of short riddles: Question #1: What do you call a person who steals a Big Mac??? Answer #1: A HAMBURGULAR!!! Now, question #2: What did Julius Ceasar say when his good friend Brutus asked him how many hamburgers he ate??? Answer #2: "Et tu, Bruti!" (HAR, HAR HAR!!!) I shall now return to the serious business of the support of the Geneve:

To end this article, I would like to keep a promise which I made to a member of our users' group, who also happens to own/use a Genny, Mr. Edward Herdliska. Mr. Herdliska has been having some problems in putting together an AUTOEXEC file for his system. Here, I would like to build an AUTOEXEC file with my readers. I will start with the most basic and necessary commands which a Genny user will need to have in his/her file. If you don't have a need for a particular function, you will not be required to keep this command in your own AUTOEXEC file. Here, I would like to mention a most important fact: With the later versions of MDOS, it is possible to load in a new AUTOEXEC file without rebooting your machine. If you just want to reboot your primary AUTOEXEC file, just press the key stroke combination Ctrl-Alt-Del, while you are in MDOS. This will reboot your

AUTOEXEC file, but you don't get the swan graphic; you only get that when you are rebooting your dos. Also, you are now able to have many different AUTOEXEC files that you can load while you are in MDOS, and they don't need to have the name AUTOEXEC, as your primary file is required to. Instead, you can give it any name that you may desire as long as you precede it with the ampersand symbol ("&"), which is generated by the key stroke combination of Shift-7. This means that you can have different AUTOEXEC files that do different things. You can place them onto any floppy disk drive, RAM disk drive or hard drive. To run the AUTOEXEC file, you need only enter its file name just as you would to run any other file that runs out of MDOS. One word of caution: Whenever you boot a new AUTOEXEC file, you will lose the contents of your built-in RAM disk!

I shall begin by assuming that you will eventually want to load a GPL program. I assume this simply because there are so many programs that run on a Genny which will run only out of GPL. If you want to use this option, you will need the following two lines:

```
TIMODE
GPL
```

The TIMODE command MUST be on the very first line in your AUTOEXEC file, if you want to load GPL. This command lets Genny set aside memory just for GPL. I am very aware that there are some programs, like Mike Dodd's HYPERCOPY, which take up so much memory that this first command is not allowed if you are intending on using this program. (This is a good example of why you would need to have more than one AUTOEXEC file available to you.) Again, I repeat, if you do not intend on loading GPL, then the first two commands are not necessary. Now, let's add something else:

```
RAMDISK 120
```

This command allocates 120 kilobytes of available memory for use by your built-in RAM disk. 120 is the largest value that you can presently use without causing problems. In earlier versions of MDOS, you were allowed to use a higher value, and you were also allowed to use the "SPOOL" command. With the later versions of MDOS, the "SPOOL" command is not allowed at this time. Instead, there is a default print spooler value, the exact size, which I am ignorant of, which determines the amount of memory allocated for your printer spooler. Also if you exceed the 120 kilobyte value for your built-in RAM disk memory allocation, your machine will start to act crazy. Also, if you have been already using a maximum value of 120 for your RAMDISK command, like me, you may have also been experiencing some serious problems with one MDOS command. This problem was a most baffling one until it was cleared up for me by a fine programmer, Mr. Jim Schroeder, of the

Milwaukee Users' Group.

We are conjecturing that the men, at Myarc, who have been developing the Geneve, have been using a Geneve with an additional 32K chip added to the Geneve motherboard. This chip is an easy addition, when it is added by a person who knows what the heck he is doing, and I think that Myarc may do it for you, for a nominal cost. Anyway, it seems that by doing their work on a machine with this small modification, they did not notice that 120 is not really allowed, for one certain MDOS command. In fact, I have NO problems using MDOS version 1.14 with 120 for my RAMDISK allocation, with the exception of one MDOS command. I am speaking of the COPY command. If I would try to copy a number of files from a floppy disk onto the built-in RAM disk, the files would get messed up, the machine's memory would get messed up, and my Genny would act very funny. Also, if I would try to copy a large number of files from one floppy disk to another, the copy disk would get "blown," and the disk would become unusable, until it was re-formatted. But the above problem was easily solved by using a value less than 120 for my RAMDISK location. Once that this small thing was done, there were NO problems related to version 1.14 of MDOS. I don't remember exactly what that lower RAMDISK value was. It must have been something around 96. As you write your own AUTOEXEC files, you can experiment with this value. Just be sure to make it some multiple of 8. If you don't the memory that actually allocated for this function will be some multiple of 8. For example, if you used 97 for this value, the actual allocation would be 104.

Well, I'm going to stop this article here. I will continue with my AUTOEXEC file writing project in my next installment of this article. Now its time for Krome Dome Jonz to mosey off into the sunset, and a pox upon the wag who made the scurrilous statement, "That isn't the setting sun, it's just Krome Dome's head!" (NO RESPECT!!!) Anyway, until next month,

enditenditenditenditenditenditenditenditenditendit

More to come.
Keep reading

FOUR-A/TALK

Random ramblings
about things TI.

by Bill Gaskill

April 1989

MYARC'S HARD DISK SYSTEM

Because I am a died-in-the-wool 99/4A loyalist (though my wife has another name for it) I took the plunge in September 1988 and purchased the Myarc Hard and Floppy Disk Controller (HFDC) card. I also purchased a Seagate 125-1 20 megabyte hard drive and power supply from Myarc to go with it. Total price was \$735. A lot of bucks for a 99/4A computer peripheral you say? Yes, but read on before you pass judgement.

If you are like me you want your computer to be productive right out of the box. None of this having to be an electronics engineer to assemble it first, for me. I want components that say NO ASSEMBLY REQUIRED. I am simply not a hardware hacker and I am more than willing to pay a few extra dollars for the convenience and time and frustration savings realized in buying "ready-to-run" components.

When I decided to investigate the HFDC I called Myarc at their Georgia office and talked to Jack Riley. I expressed my concerns about "turn-key" components to him and was assured that Myarc could provide me with a system that required a minimal amount of assembly. Thus convinced, I placed the order and anxiously awaited its arrival. About three weeks later I called back and inquired about the status of the order. I talked to Jack again and he informed me that I would receive the power supply from Myarc-Georgia and the controller card and hard disk from Myarc-New Jersey within the next 4-5 days. I didn't listen close enough to what he said. If I had, I might have asked how a "turn-key" system could be delivered from two different locations, especially when the power supply would come from one place and the hard disk that goes in the power supply would come from another shipping point.

True to Jack's prediction, the hard disk and controller card arrived four days later, the power supply a day after that. When I opened the box containing the power supply I discovered that it was an off-white, steel cased enclosure measuring about 6 inches wide by 18 inches deep and 4 inches high. A handsome piece of equipment that made a nice looking addition to my workstation. When I looked for the

instructions on what to do with it there were none. None meaning NOT ONE! A slight trickling of panic seeped into my thoughts. I then opened the box containing the controller card and found a 3-ring binder with about 80 pages of some of the most confusing documentation I have ever read. But not one word of it told me what to do with the power supply nor how it was to be hooked up to the hard drive. So much for "turn-key" systems.

Well I rolled up my sleeves, dug in, and figured out a couple of things without too much hassle. First, there are two power connectors inside the power supply box (white plastic connectors on the end of red wires) and you can use either one, since the unit is built to handle two hard drives. Second, the cover plate I got that fills the blank space for the second hard disk I didn't buy, can be installed without a degree in mechanical engineering. The electrical cord for the power supply only plugs in one way so I couldn't very well do too much damage there. On to the hard disk.

The Seagate ST125-1 that I ordered from Myarc was represented as a 28 millisecond access time hard disk in my conversation with Jack Riley. I find that difficult to believe since Computer Shopper ads put the ST125 at 40 milliseconds. The ST125 sells for around \$269. A 28 millisecond Seagate goes for just under \$500. You can draw your own conclusions. Anyway, the drive is a 3.5 inch masterpiece that bolts easily to the base of the power supply. The back of it has two edge connectors for two ribbon cables that I could not find in any of the boxes that were delivered to my house. So I set the entire unit aside and moved on to the controller card.

In an act totally out of character for me, I read the manual before proceeding with the installation of my HFDC. When I was sure that I got all that my tiny brain could get out of the documentation I called Myarc-Georgia for help. I just couldn't make enough sense out of what was being said to risk damaging my \$735 investment. It turned out that the phone call was about the first really correct thing that I had done (Jack Riley to the rescue). I immediately asked about the missing cables and was told to unfold the two panels in the HFDC box that kept the 3-ring binder and card from moving around. Low and behold, two ribbon cables, one 20 pin and one 34 pin. Boy did I feel stupid. From that point on, I decided to invest in the cost of whatever number of telephone calls it took to get Jack to walk me through the set up of the whole system. That was the second correct thing I did.

The installation went fairly smooth once I had a guiding voice on the phone to keep me from making any mistakes. In fact, the entire set up is rather painless once you go through it about two times, which I did. I don't know what went wrong the first time, but things got so scrambled on the hard disk that nothing would work right. Jack Riley offered

the opinion that the cause was not turning everything on and off simultaneously with a master switch. I'm not totally convinced of that though since I have been able to turn the hard disk on last and off first and have had no problems. But I suggest that you stay with what the manufacturer tells you to do, so that your warranty isn't jeopardized.

There are some things about the set up, particularly the formatting of the hard disk, that I don't think I could ever have figured out on my own. When the FORMAT command is accessed from the Myarc Disk Manager 5 you must respond to a series of questions like volume name, sectors per track, number of heads, cylinders, write pre-compensation, interlace and the like. It all sounded pretty foreign to me. But with my guide on the other end of the telephone line I tackled the job as any brave soldier would who was facing the enemy's ground troops from behind an M60 tank. No problem!

In looking back, I again realize the correctness of making the telephone call to Myarc. Because the MDM5 disk manager program has gone through several updates and the documentation has not been brought totally up to date with the program, the manual tells you things that are no longer correct or that are incomplete or are in some way different than what you are staring at on your monitor. Had I not had the benefit of Jack Riley's immediate tutledge over the phone I would probably still be wondering how to get the HFDC and hard drive working. I must fault Myarc for that. There is no excuse for not providing the most correct and up to date information in the manual. The documentation appears to be about two years old as far as I can tell and it gives such erroneous information as "the cables (connecting the hard disk to the HFDC) can only be put on one way. Wrong! The red strip on the edge of both of my cables had to be at the bottom when installed on the HFDC and facing to the right when attached to the power supply. Physically, they can be installed on the edge connectors either way, but only one way is correct. The manual really needs a going over to bring it up to speed with the current requirements of the set up process.

Back to the formatting. John Kolean wrote two nice articles in the September '88 issue of MICROpendium on the HFDC and its use with a hard drive. Some of the information helped me but not enough of it to get the system up and running. Here is what I did with my hard drive formatting. Maybe it will help you.

VOLUME NAME: 1 (The Volume Name is just like the disk name that you give a floppy disk. WDS1. already appears on the screen. You merely type in a name after the WDS1. to name the ROOT directory of the hard drive. If you name it the number 1 (the actual number 1) you will be able to read and write to your hard drive from programs that will not support

pathing, which is most of the programs I own. I guess few software authors ever believed that we would ever get out of the DSK arena. Too bad. More on this later.

SECTORS PER TRACK: 32
 HEADS: 4
 CYLINDERS: 615
 RESERVED DIR/FILE SECTORS: 2048
 WRITE PRECOMPENSATION: 0 (erase the default then enter zero).
 REDUCED WRITE CURRENT: 0 (erase the default and enter zero).
 SECTOR VERIFICATION RETRIES: 8
 INTERLACE: 2
 STEP RATE: 0

These settings may not be valid for your drive if you have a different hard disk or an earlier or later version of MDM5. My copy of MDM5 is V1.25. I noticed that in the MICROpendium articles mentioned above John Kolean has V1.23 and the prompts he lists in the article are different than the ones that appear on my FORMAT screen. Versions 1.26, 1.27 and V1.28 are pretty much the same as 1.25, especially as far as what you are prompted for when formatting the hard drive. When I last talked to Jack Riley (March 13th) V1.29 had just or was about to be released.

When you have completed entering the above values type in the word FORMAT to format the hard disk. While the process of formatting is taking place MDM5 will display a bunch of information on the screen to give you something to stare at while it takes the six minutes or so to get the job done. If you begin noticing more than 1 or 2 BAD SECTORS appearing during the format you might have a problem with some kind of electronic garbage hindering the process. This happened to me so I tried reformatting again as John Kolean suggested in his article, but the problem only worsened. The formatting really slowed down and it seemed as if every sixth sector or so showed up as being bad. I KNEW that couldn't be right so I finally powered down the entire system and let it sit for about 10 minutes to clear it of any garbage and to let it cool down. That seemed to work as I was able to reformat the disk successfully on the next attempt, with no bad sectors.

Once the hard disk is formatted you can leave it as it is or you can create subdirectories on it. Either way, the system is usable once the formatting is complete. With my system I chose to build subdirectories to take advantage of the DSK1 emulation available with the hard drive. I also put a copy of MDM5 on my disk for lightening quick access. The configuration listed below has worked flawlessly thus far. If you can't get yours to work feel free to try mine if you like. I give no guarantees though, as I know only enough about this piece of hardware at this point to be truly dangerous.

Subdirectories:

 WDS1. (the root directory)

DSK.
 TIMP. (this is a nested subdirectory of the DSK subdirectory. It contains the files from my Multiplan disk: MPBASE, MPCHAR, MPDATA, MFHLP, MPINTR, OVERLAY).

DSK1. (this subdirectory contains the MDM, MDM5 and MDMXB files from the Myarc Disk Manager).

UTIL. (UTIL has the MDM, MDM-BACKUP, MDM-DELETE, MDM5, MDM6, MDM7 MDM8, MDM9, MDMCBACKUP and MDMXB files in it)

The process of making the subdirectories and copying the files to the various areas is fare for another article, but I will say that using the MDM5 program was and is a most enjoyable experience. It is truly a neat piece of software that is pretty easy to understand as it is. Not much is needed in the way of docs. Wonder who wrote it?

I still have a long way to go before I completely understand the workings and capabilities of my new piece of hardware, but I am absolutely thrilled to have it as an addition to my workstation. I now have what I will boldly claim to be the largest 99/4A data base in existence, 6515 records (2448 sectors) in a single file. I certainly could never have done that on any other storage media available for the TI.

THIS MONTH IN 4A HISTORY:

1983:

-On April 25, 1983 Texas Instruments began offering a free Peripheral Expansion Box to anyone purchasing any three of the following; an RS232 card, a disk controller card, a disk drive, a 32K memory expansion card, a p-Code card, TI-Writer or Multiplan.

-Navarone Industries introduced the "Select-a-Cart" module expander, more commonly known as the Widget and finally named the Cartridge Expander.

-Model Masters of Fullerton, California, now doing business as DataBiotics, introduced JOYPRINT, a low-cost but ill-fated RS232 printer hookup that operated out of the joystick port.

-Tom Wynne, a Seattle area 99er who created the NOLIST utility for XB prgrammers and then gave it away in Barry Traver's Genial Traveler, made it into the 99er Hall of Fame with a score of 1,009,600 points in Tombstone City.

1984:

-Compute!'s First Book of TI Games made it debut in Compute! Magazine.

-Mikel Laboratories released their RS232 standalone unit for the 99/4A and at the same time announced plans to build a peripheral expansion box for our computer.

-Joseph Nocera's now classic "Death of a Computer" article on the demise of the 99/4A appeared in the Texas Monthly magazine.

-Texas Instruments still had 14% of the home computer market, despite the bailout five months earlier. Commodore had 37%.

1985:

-INTELPRO released a French version of their COMPANION word processor.

1986:

Unisource Electronics of Lubbock, Texas, a major TI-99/4A retailer and mail order house since March of 1983, goes out of business.

-PILOT 99 author Thomas Weithofer dies at age 22.

-Amerisoft, a Georgia based supplier of TI products, and a supporter from the early days of the 4A, leaves the TI market.

1987:

-Monty Schmidt, author of the Techie BBS program, releases Command DOS for the 99/4A.

-The Amnion Helpline, run by former International Users Group librarian Dr. Guy Steffen-Romano, receives an award from the Front Range 99ers of Colorado Springs, Colorado, for continued support of the TI community.

1988:

-Bob Lawson 1344 Boston Ave. Bayshore, New York 11706, announces that the Forti Music Card, formerly offered by the now defunct Unisource Electronics, is still available through him.

TRIVIA:

Did you know that...

-LA99ers User Group member forever George F. Steffen wrote the 99/4A version of Beanstalk Adventure and that he also wrote some of the assembly software for Craig Miller's Gram Kracker conversion utilities?

-Funware, the Richardson, Texas company started by an ex-TI employee that produced Ambulance, Henhouse, Rabbit Trail etcetera, also planned to introduce another cartridge game called Galactic Barrier, but never did?

-Moonbean Software of Northampton, Massachusetts, long-time supporter of the 4A community with a stable of game programs, used to be called HI-FI Exchange?

-TI community personalities Cheryl Whitelaw, Steven Shaw and Tom Wynne all made it into the 99er Hall of Fame with their game scores in Munchman (178,950), Pinball (10,028,010) and Tombstone City (1,009,600) respectively?

-The Turbo Pasc 99 project marketed by L.L. Conner Enterprise, was originally undertaken by Barry Boone under the support of Steve Lamberti of Texaments? Wonder what happened? Texaments even advertised it in MICROpendium a couple years back. Must have taken too long to convert it all over from the German language that it was originally written in.

-Lou Phillips (who?) was once a VP at the Chase Manhattan Bank in New York?

-Windows99 from CSI Design Group in St. Louis, Mo. was written by Ken Dibble (who?)?

Next month; an in-depth look at Barry Traver's Genial Traveler Diskazine and what you are missing if you are not a subscriber, more 4A history and of course... more trivia!

Until then....

PROGRAMMING CONTEST WINNERS

I obtained this list after I had already given the newsletter to the printer. I will make this short and sweet. The 1989 Programming Contest Winners are:

First Place and \$100.00 winner- Carl Schwerin with Multiple Choice Trivia

Second Place and \$75.00 winner- Oscar Bretana with FRBUTILII

Third Place and \$50.00 winner- Charles Kirkwood with GERMAN

Fourth Place and \$50.00 winner- Carl Martikean with Stock and Options Model

Fifth Place and \$25.00 winner- Danny Goldstein w\ Power Game
CONGRATULATIONS to all. See you at the May meeting for a demo of your winning software.

-bd.

DID YOU KNOW THAT...?

By Chick De Marti of LA 99ers

SPICE UP YOUR CALL KEY ROUTINES
- Dilie Hebert -

How about a bouncing question mark for a project? As listed below, this mini-program will demonstrate the idea with only a little typing on your part. If you like it, incorporate it into your own program.

```
150 DISPLAY ERASE ALL : CALL
  L CHARPAT(53,C#): CALL CHAR
  (64,SEB$(C3,3,14))
```

```
200 DISPLAY AT(4,3): "SELECT
  FROM THESE ITEMS:" : FOR I=
  1 TO 4 : DISPLAY AT(1+2+7,9
  ):CHR$(1+64): "PROCESS #":
  CHR$(1+48): NEXT I
  310 DISPLAY AT(17,8)BEEP:"E:
  QUIT": : : "YOUR CHOICE
  (A-E) ?" : 60SUB 10000
  : ON X-54 GOTO 1000,2000,30
  00,4000,5000
```

```
1300 PRINT X-64 : GOTO 5000
2000 PRINT X-64 : GOTO 5000
3000 PRINT X-64 : GOTO 5000
4000 PRINT X-64 : GOTO 5000
5000 END
```

```
10000 Z=64+(Z*64): DISPLAY
  AT(21,24):CHR$(Z): CALL KEY
  (3,X): IF /#0 THEN 10000
```

```
10010 IF ( 65 OR 67 THEN C
  ALL SOUND(200,220,8): GOTO
  10000 ELSE CALL SOUND(200,14
  00,8): DISPLAY AT(21,24):CH
  R$(X): RETURN
```

How about altering the color of the question mark? Only two of the above statements need to be changed. (lines 150 and 10000)

```
150 change CALL CHAR to CALL COLOR(14,12,1)
  : CALL CHAR(143,C#)
  10000 change Z= TO Z=143+80+Z=143)
```

This little gem found in SMAUG/99 newsletter

WHAT DO YOU MISS?

By not showing up at a meeting, besides not seeing Steve Nier's demo of MINDEX (Database) and Ray Kacmer's new load program that will, "set off autoalarms and open garage doors for

a 5 block area"...you also miss some good ... fellowship (or is it personship?). Ray, Steve and I got to talking, and I learned, "you can use a semicolon to replace a GOSUB command as per this demo":

```
100 CALL CLEAR : CALL COLOR
  (9,5,5): FOR C=1 TO 22 STEP
  2 : CALL VCHAR(1,C,96,24):
  : NEXT C
  110 DISPLAY AT(5,1): "THIS IS
  TEST A" : DISPLAY AT(6,11)S
  IZE(14): "THIS IS TEST B"
  120 DISPLAY AT(12,1): "THIS I
  S TEST C" : DISPLAY AT(15,
  1): "BY RAY KACMER"
  130 GOTO 130
```

I mentioned (as we had our coffee and donuts) that some times it would be nice to have 2 or 3 BEEPS as a warning, but as you know, you can't enter: DISPLAY AT(1,1)BEEP BEEP BEEP. So Ray sez, "Oh yeah" Write it this way:

```
125 FOR A=1 TO 3 : DISPLAY
  AT(1,1)BEEP:" " : CALL SOUND
  (300,4E4,30): NEXT A
```

(These last two items were written on a paper napkin...thank again Ray)

Not to be out-done, line 125 can also be:

```
125 FOR A=1 TO 3 : CALL SOU
  ND(200,1400,3): NEXT A
```

And here's a little surprise. Enter this exactly as I have it typed:

```
NEW
10 CALL CLEAR
20 CALL COLOR(9,5,5)
30 CALL VCHAR(5,5,96,5): HC
  HAR(6,5,96,5)
40 GOTO 40
```

RUN this...then figure why it do what it do?

Another good reason for getting involved in your club meetings. SIGs, committees, etc.

```
*****
: I HEAR, I FORGET :
: I SEE, I REMEMBER :
: I DO, I UNDERSTAND :
*****
See you at the next meeting? I'll be there.
```

COMPUTER DIAGNOSIS

From T.I. Riverside U.G.

Computer Diagnosis

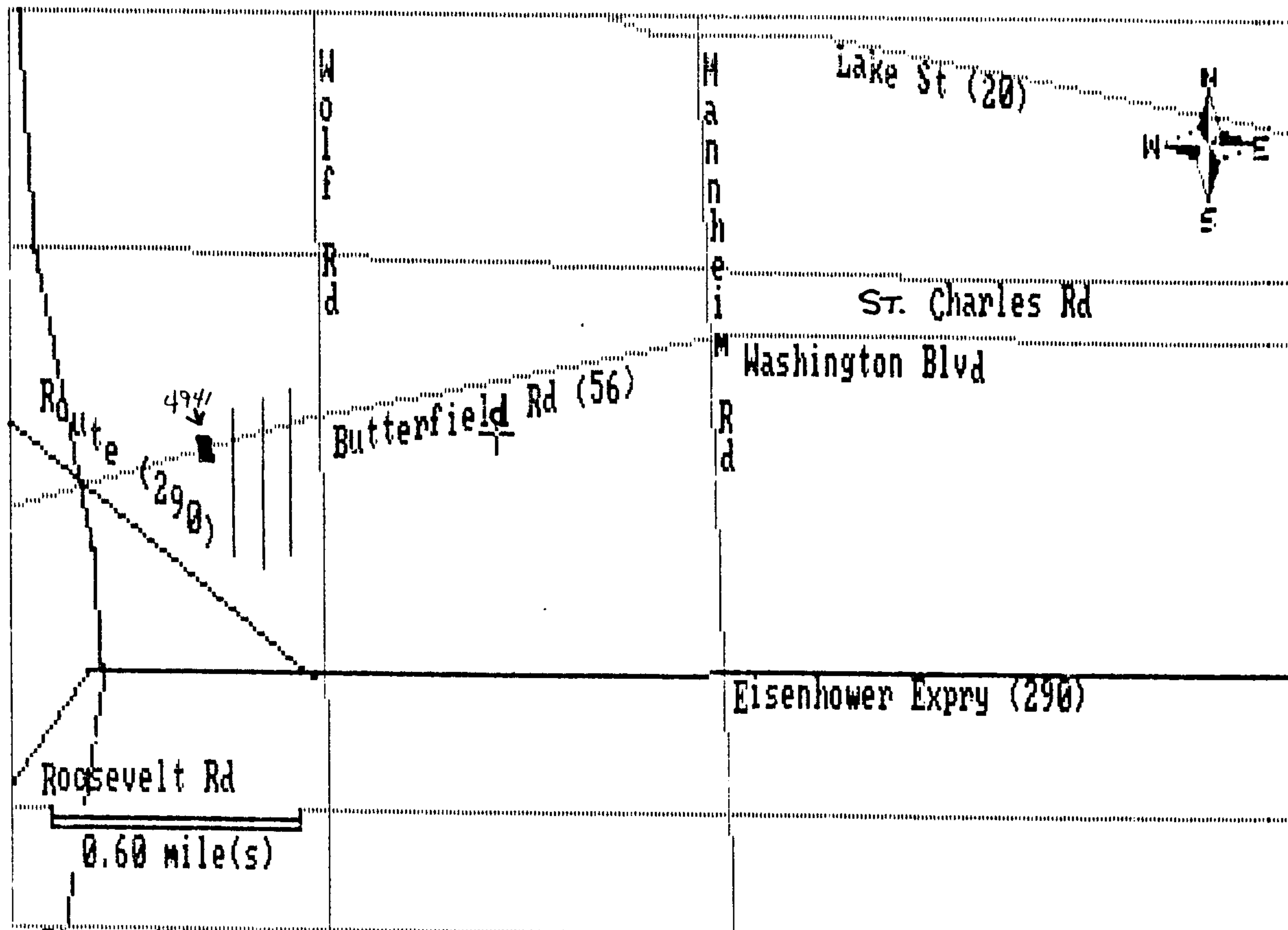
The following program was taken from the T.I. Riverside User Group Newsletter of May, 1987. I think it is an IMPORTANT program that everyone who owns a T.I. computer should have. It is written in BASIC and should be short enough so as not to cause you any trouble when typing in. To make your typing a little more accurate, it has been processed through Tom Freeman's CHECKSUM program. A note of caution on that, too. The exclamation point (!) and the 3 numbers that follow at the ends of the lines should NOT be typed in to your program. These are the checksum for the line and are calculated by the CHECKSUM program. You will note that the last 8 or 9 lines of the program are DATA statement lines. If you should add the checksum to these lines, especially, the program will NOT work properly, as the program tries to read the checksum as part of the DATA.

Otherwise, have at it! And for those too lazy to type it in for themselves, it will be put on the BBS as a download some time late in the afternoon or evening of April 9, the day of our User Group meeting.

```
10 RANDOMIZE :149
20 CALL CLEAR :209
40 PRINT "THIS IS A" :193
50 PRINT "COMPUTER DIAGNOSIS" :165
60 PRINT :156
70 PRINT "PRESS (ENTER) AFTE" :192
80 PRINT "EACH REPLY." :1089
90 PRINT :156
100 PRINT "WHAT IS YOUR CODE" :148
110 INPUT N# :1004
120 IF N#="" THEN 100 :1088
130 CALL CLEAR :209
140 PRINT "ALRIGHT, ";N#;" " :145
150 PRINT "YOUR CODE NAME IS
```

```
ACCEPTED." :140
160 PRINT "NOW, TYPE A FOUR" :137
170 PRINT "NUMBER. THEN PRES" :140
180 PRINT :156
190 INPUT "WHAT IS YOUR NUMB" :1247
200 IF N#999 THEN 210 ELSE 2 :121
210 IF N#10000 THEN 260 :205
220 PRINT :156
230 PRINT "INVALID NUMBER!" :1092
240 PRINT :156
250 GOTO 190 :1013
260 CALL CLEAR :209
270 PRINT "YOUR NAME IS: ";N :1061
280 PRINT :156
290 PRINT "YOUR NUMBER IS: " :1195
300 PRINT :156
310 PRINT "IS THAT RIGHT? (Y" :1136
320 CALL KEY(0,A,ST):1005
330 IF ST=0 THEN 320 :156
340 IF A#>9 THEN 20 :1012
350 CALL CLEAR :209
360 PRINT "O.K., ";N#;" " :1170
370 PRINT "BEGIN A QUICK" :1211
380 PRINT "HARDWARE CHECK." :1108
390 CALL KEY(0,A,ST):1005
400 IF A#>67 THEN 390 :1123
410 CALL CLEAR :209
420 FOR T=1 TO INT(8*RND)+5 :1223
430 PRINT "LOCATION #";T;"=A" :153
440 FOR D=1 TO 300 :151
450 NEXT D :1218
460 NEXT T :1234
470 PRINT "LOCATION #";T;"=E" :1230
480 PRINT :156
490 PRINT "PRESS (ENTER) FOR" :1069
500 CALL KEY(0,KEY,STATUS):1234
510 IF KEY#13 THEN 500 :1196
520 CALL CLEAR :209
530 PRINT N#;" " :1198
540 PRINT "THAT YOUR COMPUTE" :1040
550 FOR X=1 TO 27 :128
560 READ P :1231
570 PRINT CHR$(P):1227
580 FOR D=1 TO 200 :150
590 NEXT D :1218
600 NEXT X :1238
```

```
610 PRINT :156
620 PRINT "PLEASE WAIT 15 SE" :171
630 PRINT "COMPLETE DIADNOSI" :187
640 FOR D=1 TO 700 :155
650 NEXT D :1218
660 CALL CLEAR :209
670 FOR T=15 TO 1 STEP -1 :231
680 PRINT "TIME:";T :1217
690 FOR D=1 TO 200 :150
700 NEXT D :1218
710 CALL CLEAR :209
720 NEXT T :1234
730 CALL CLEAR :209
740 CALL SCREEN(10):195
750 REM **BE SURE YOUR ALPHA" :1043
760 A$="FFFFFFFFFFFFFFF" :1090
770 CALL CHAR(128,A$):1114
780 READ A,B,R :1210
790 IF A=-1 THEN B20 :1237
800 CALL VCHAR(A,B,128,R):1155
810 GOTO 780 :1094
820 READ A,B,R :1210
830 IF A=-1 THEN B60 :1023
840 CALL VCHAR(A,B,128,R):1155
850 GOTO 820 :1134
860 GOTO 860 :1174
870 DATA 83,69,86,69,82,69,3 :1136
880 DATA 32,77,65,76,70,85,7 :1136
890 DATA 9,5,2,15,5,2,21,5,6 :1123
900 DATA 9,17,1,10,18,1,11,1 :1123
910 DATA 5,14,9,5,14,15,5,14 :1123
920 DATA 5,23,15,5,23,21,5,2 :1108
930 DATA 7,10,2,9,10,2,13,5, :1174
940 DATA 27,10,14,3,10,14,9, :1174
950 DATA 19,10,14,21,10,14,2 :1198
960 DATA 7,5,18,30,5,-1,-1,-1 :1198
```

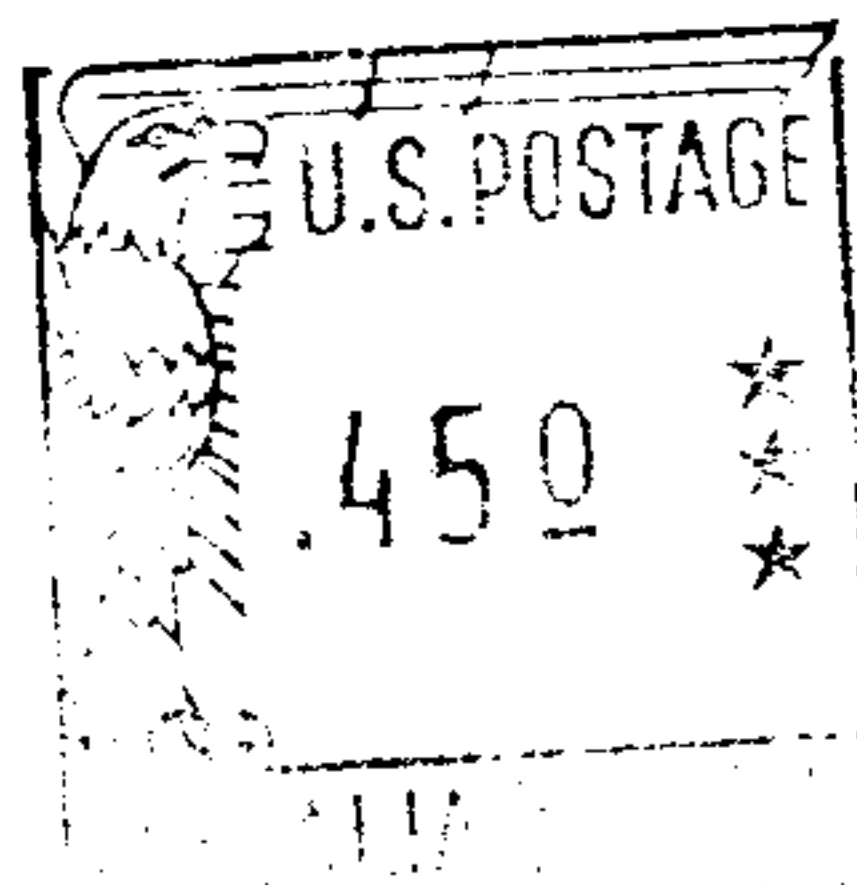
Places **Route** Streets Zoom -set *print DOS Quit ...space (more)...

=====

Chicago TI User's Group
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Chicago, Ill. 60657

First Class Mail

Address Correction Requested



ADDENDA

Our next two meetings will be held on May 13 and June 3, respectively. Please note that the May meeting will not be the traditional first Saturday of the month. Rather, it is the second.

The cost of a hardware manual is \$6.00 when purchased in person. If it is ordered by mail, please add an additional \$4.00 for handling and postage; this is a total of \$10.00. All orders should be sent to our post office address.

WANTED!!!

If anyone has a system for sale, please leave a message on the group's bbs (312)862-0182, or send notice of it to our post office box. Marcy has expressed interest in getting one for her mom.

I am also looking for used metal card cases ("clam shells"). If anyone has any p-box cards that are no good or fried beyond repair, I would like to purchase the metal case. Please drop me a note at our post office box. Thanks. Don Jones